

Matter of: TRW, Inc.

File: B-260623; B-260623.2; B-260623.3; B-260623.4;
B-260623.5

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DIGEST

1. In reviewing protests concerning the evaluation of proposals, we will examine the agency's evaluation to ensure that it had a reasonable basis. The fact that a protester does not agree with the agency's evaluation does not render the evaluation unreasonable.
2. Source selection officials in negotiated procurements have broad discretion in determining the manner and extent to which they will make use of the technical and cost evaluation results. In exercising that discretion, they are subject only to the tests of rationality and consistency with the established evaluation factors.

DECISION

TRW, Inc. protests the award of a fixed-price contract to Hughes Aircraft Company under request for proposals (RFP) No. RFP5-58651/486, issued by the National Aeronautics and Space Administration (NASA) for three satellites designated as Tracking and Data Relay Satellites (TDRS) H, I, and J. TRW's principally argues that the agency failed to identify its proposal as offering the "greatest overall benefit to NASA" by miscalculating technical proposals and by not properly considering, consistent with the RFP's evaluation

scheme, the actual costs the agency will incur in providing launch services to the successful contractor to place the satellites in orbit.¹

We deny the protest.

The TDRS program is a critical component of NASA's "Space Network." The TDRS system includes the satellites placed in geostationary orbit with the Earth and the ground facilities at White Sands Complex, New Mexico. The TDRS system provides high volume, continuous communication capability for almost all low-Earth orbit missions, including the Space Shuttle, the Hubble Space Telescope, other scientific satellites, and various classified missions. As stated above, NASA, under this procurement, is purchasing three TDRS spacecrafts for three consecutive launches, plus associated telemetry monitoring and ground station modifications.

The RFP was issued on April 29, 1994, and solicited fixed-price proposals for the satellites. Section M.1.1 of the RFP stated as follows:

"The evaluation factors are Mission Suitability, Price, Relevant Experience and Past Performance, and Other Considerations.² The findings will be presented to the Source Selection Official [(SSO)]. The [SSO] will make a selection decision based upon that combination of proposal features under all of these Evaluation Factors which provides the greatest overall benefit to NASA, including consideration of NASA resources impact." (Emphasis supplied by the protester.)

¹The RFP stated that NASA, at its own expense, will provide the expendable launch vehicles (ELVs) which are necessary to transport the successful offeror's three satellites into low Earth orbit. According to the protester, these ELV out-of-pocket costs of the agency were not properly and fully considered in selecting the proposal which represented the greatest overall benefit to NASA as required by the RFP. We note, by way of explanation, that under the RFP the contractor was required to provide, along with the three satellites, spacecraft capabilities with propulsion capacities to boost the three satellites from low Earth orbit (achieved by the ELVs), through a transfer orbit, into geostationary earth orbit.

²The RFP stated that these four evaluation factors were of "essentially equal importance."

Section M.5 of the RFP contained the Other Considerations factor, which included eight subfactors. The first of the three significantly more important subfactors was entitled "NASA Resources Impact," which stated as follows:

"NASA Resources Impact consists of one time and recurring costs or savings not covered by the TDRS H, I, J contract but that are directly caused by the offeror's proposed approaches, designs and schedules [during the entire lifetime of the spacecrafts]. Evaluation of NASA Resources Impact includes consideration of risk associated with such costs and/or savings that are a consequence of risks (e.g., technical, schedule, cost) embodied in the offeror's proposal.

"Cost estimates for the Government-provided launch services most appropriate for the proposed spacecraft will be derived from NASA contracts and from NASA estimates. . . .

"Data from this subfactor will be considered together with data from the Price evaluation factor to determine the impact to NASA resources.

"Examples of relevant NASA Resources Impacts (costs and/or savings, one-time or recurring) include the cost to NASA of launch services provided by the Government that are required to launch successfully all TDRS H, I, J spacecraft to be delivered under this contract . . ." ³
(Emphasis in original.)

Initial proposals were received from TRW and Hughes by the initial closing date of June 15, 1994. After the agency's Source Evaluation Board (SEB) completed its initial review, the agency included both TRW and Hughes in the competitive range. Between October 20, 1994, and January 23, 1995, the agency conducted written and oral discussions with TRW and Hughes (approximately 300 discussion questions were directed

³An important feature in an offeror's technical approach and design, as well as in the "Resources Impact" to NASA, was the offeror's selection of the government-furnished expendable launch vehicle (ELV) that would place the satellites in low-Earth orbit. The RFP permitted the offeror to propose the most appropriate ELV; the RFP did not state a preference for any particular ELV. These ELV costs are borne by the government, are not covered by the TDRS contract, and are "launch services" costs within the meaning of the term in the "NASA Resources Impact" subfactor provision quoted above.

to each firm). In addition to initial proposals, the agency, during the course of this procurement, received from both offerors extensive written responses to discussion questions, revised proposals, and best and final offers (BAFO), which included each offeror's "model contract." BAFOs and model contracts were received by the agency on January 30, 1995.

In its offer, Hughes proposed to use the larger, more expensive, and more powerful (heavier payload capacity) Atlas rocket as its ELV; TRW selected the smaller capacity Delta rocket as its ELV because it was less expensive and had higher reliability. The SEB evaluated BAFOs and concluded, by way of summary, essentially as follows with respect to the Hughes proposal:

"The [Hughes] proposal . . . is based on the use of a flight proven communications satellite bus which has been developed and flown on numerous commercial and government programs [and the] payload hardware has been developed, prototyped and tested. . . . The chosen launch vehicle is the standard [Atlas], which provides ample spacecraft mass contingency and associated lift-off mass margin. The robust fuel and power budgets provide for more than sufficient margin for the required mission life."

In short, the agency states that Hughes proposed a proven and relatively risk-free "production-model spacecraft coming off its spacecraft assembly line [without] the need for Hughes to `push the envelope' on development of spacecraft engine fuel efficiency, fuel tank size and state-of-the-art lightweighting." The agency states that Hughes' choice of the more powerful Atlas as its ELV also relieved the spacecraft of some of the burden of providing the propulsion capability required to lift the spacecraft from low-Earth orbit to geostationary earth orbit.

Concerning TRW's proposal, the SEB found essentially as follows:

"The TRW proposal [is] based on [deleted]. The designs are to some degree based on [deleted]. . . . The fuel budget is barely adequate to support the required mission life. TRW, however, has indicated that additional mass growth could be handled by [deleted]. The final [(backup)] approach to support additional spacecraft mass growth would be [TRW's stated [deleted]].

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"TRW's approach to overall mission design forced a pattern of design choices that reduce weight but increase technical and schedule risk [deleted], the overall risk to the program is increased significantly by the choice of the standard [Delta rocket]. The overall mission design and associated budget analysis and calculations appear to indicate that [deleted]."

In short, the agency states that TRW's choice of the Delta as its ELV forced the firm to attempt to "fit" its spacecraft on the smaller and cheaper ELV which, in turn, forced TRW to make numerous design and mission profile tradeoffs and assumptions in its technical proposal which added risk to meeting NASA's requirements.

The SEB's final evaluation of Hughes' and TRW's proposals resulted in the following ratings, with the numeric Mission Suitability Factor point scores in parentheses:

	<u>Hughes</u>	<u>TRW</u>
Mission Suitability	Very Good (896)	Good (594)
Price	\$481.6 million	[deleted]
Relevant Experience and Past Performance	Very Good	Very Good
Other Considerations	Very Good	Very Good ⁴

Based on the findings of the SEB, and his own review, the SSO selected Hughes for award. This protest followed.

TRW'S ELV COST EVALUATION CONTENTIONS

According to the protester, NASA officials visited TRW in 1993 and "exhorted" the firm that this visit "[was] motivated by the overall interest [of NASA] in executing the TDRS program consistent with the theme of 'better, faster and cheaper;' that NASA would prefer to spend less money on its own "infrastructure," including TDRS; that the next generation of TDRS would have to perform "at the lowest cost to NASA;" and that the NASA officials encouraged TRW to "trust its technology" to develop TDRS satellites that could

⁴The agency adjectivally rated cost estimates for government-provided launch services under the Other Considerations factor rather than directly considering them as a finite, out-of-pocket price evaluation factor. TRW's rating in Other Considerations factor was increased to a Very Good rating by the SSO, despite a previous "good" rating by the SEB, because of the potential cost savings of its proposed use of the Delta rocket.

be launched on the Delta ELV to reduce overall costs.⁵ In response, TRW states that it developed a TDRS satellite capable of being launched on the cheaper Delta. TRW argues that this procurement was a "best value" procurement ("greatest overall benefit") which required the agency, under the terms of the RFP, to quantify and evaluate (in essence as a price evaluation factor) the actual out-of-pocket savings NASA would realize from TRW's use of the cheaper Delta ELV rocket.

Solely for purposes of our decision, we adopt the protester's interpretation of the RFP with respect to the alleged requirement for the agency to consider the Delta launch savings in its determination of overall cost to the government as a price factor. However, the issue still remains as to which offeror submitted the proposal that represented the greatest overall benefit to the government under the specific terms of the RFP considering technical and cost considerations, including launch costs.

TECHNICAL EVALUATION

In reviewing protests concerning the evaluation of proposals, we will examine the agency's evaluation to ensure that it had a reasonable basis. RCA Serv. Co.; et al., B-218191; B-218191.2, May 22, 1985, 85-1 CPD ¶ 585. The fact that a protester does not agree with the agency's evaluation does not render the evaluation unreasonable. Logistic Servs. Int'l, Inc., B-218570, Aug. 15, 1985, 85-2 CPD ¶ 173. Source selection officials in negotiated procurements have broad discretion in determining the manner and extent to which they will make use of the technical and cost evaluation results. Grey Advertising, Inc., 55 Comp. Gen. 1111 (1976), 76-1 CPD ¶ 325. In exercising that discretion, they are subject only to the tests of rationality and consistency with the established evaluation factors. Id.

Technical Risk

TRW argues that the agency misevaluated technical proposals because the agency unfairly and improperly assessed risks against TRW based on TRW's proposed use of the Delta rocket even with its backup [deleted] and gave undue emphasis to technical risks during its evaluation.

⁵The protester states that NASA at about this time also offered oral and written testimony to Congress that the TDRS satellites would be procured on a "best value" basis and that overall cost, including launch services, would be considered in the selection process.

Initially, we conclude that the RFP, as finally issued, advised offerors that the technical risks of each offeror's proposed approach, especially in the Mission Suitability factor, would be a major element in the technical evaluation. For example, the RFP stated that the "Mission Suitability evaluation factor [would encompass evaluation of] the risks associated with the proposal in this area" (Section M.1.2); system considerations subfactor includes "the programmatic risks and risk mitigation approaches associated with these designs" (Section M.2.1); systems engineering management includes "how programmatic risk will be identified and managed" (Section M.2.1); spacecraft bus element evaluation encompasses "the programmatic risks and risk mitigation approaches associated with these designs" (Section M.2.1); spacecraft payload element evaluation encompasses "the programmatic risks and risk mitigation approaches associated with these designs" (Section M.2.1); and the component and spacecraft verification, integration, test and launch support element includes an evaluation of the "programmatic risks and risk mitigation approaches associated with these efforts" (Section M.2.2). Moreover, we think that consideration of the risks involved in an offeror's proposed technical approach, especially for a life-critical item, is inherent in the evaluation of proposals. See Information Spectrum, Inc., B-256609.3; B-256609.5, Sept. 1, 1994, 94-2 CPD ¶ 251.

Therefore, notwithstanding TRW's expectations, we think that NASA's evaluation of risk--the probability of (and the degree of certainty of) the success of mission requirement--was consistent with the RFP evaluation terms and that TRW was on notice that an evaluation of risk would be an element of the best value determination. Accordingly, we next turn our discussion to the major evaluation factors as evaluated by the agency.

Mission Suitability

Under the Mission Suitability factor, the agency determined the Hughes proposal to be substantially technically superior (896 versus 594 points) to the TRW proposal. While the protester raises numerous technical arguments, some of which we mention below, we essentially limit our discussion to a comparison of the basic, fundamental technical approaches of the two offerors which substantially distinguish the technical merits of the two proposals as submitted to and as evaluated by the agency.

In its technical proposal, Hughes combined its successful commercial satellite operations, including a flight-proven bus, launch on the more powerful Atlas with its proven interface, and conservative weight margins with room for weight growth. Specifically, Hughes' spacecraft bus design

was based on the HS601 commercial communication satellite bus which had flown 12 times previously and provided a low risk approach to the overall mission design. Hughes' bus required little additional development to accommodate the TDRS. Hughes' proposal stated:

"Several features of our TDRS bus come from the Navy UHF F/O HS-601 government program which benefits from commercial design practice in the development, manufacturing, integration, and test of the spacecraft bus. These practices are applicable to TDRS, and because most of our bus is derived from this program, over 80 [percent] of the bus is flight proven, resulting in little development and no unique manufacturing processes."

In addition, Hughes' selection of the Atlas was found to present additional advantages to the TDRS contract since its "throw weight allows risk reducing margins of fuel, power, and payload weight." The SSO summarized certain of the other strengths of Hughes' proposal:

"Major strengths of the [Hughes] proposal included a systems engineering management approach and process that is comprehensive and extensive; a selected launch vehicle which is flight proven and provides significant weight and volume margins; a single access antenna which provides significantly increased coverage; a Ka-Band return performance which exceeds the RFP's requirement; a strong, flight-proven spacecraft bus and subsystem heritage; two dedicated channels for space to ground links; and two simultaneous multiple access forward channel capabilities, both of which exceed the RFP's requirements; [and] an established spacecraft verification program that minimizes risk."

Thus, the record shows that the agency properly found that Hughes proposed a proven, reliable and relatively risk-free satellite system. The protester itself does not essentially dispute the agency's determination regarding the Hughes proposal.

In contrast, TRW recognized [deleted] TRW to attempt to develop its TDRS for the smaller and less expensive Delta ELV. In its initial proposal, TRW proposed [deleted] that would address weight margin problems with that ELV. [Deleted] as another method of alleviating weight margin problems. [Deleted]. As a "fallback position," TRW stated that it would [deleted], and that it would [deleted]. After discussions with the agency, TRW, in its BAFO, [deleted].

TRW's "fallback position" was that [deleted]. Also, TRW's [deleted] "risk mitigation" plan was [deleted]. The protester itself states as follows:

"The [Delta], while less expensive, is also less powerful. Hence, it is axiomatic that the [Delta] would have lower weight margins than an Atlas . . . [TRW therefore] would have to be [deleted].

"In addition to [deleted] weight and weight margin, TRW's risk mitigation plan included [deleted]:

[Deleted].

Of particular concern to the agency was TRW's proposed mass budget and thin weight margin which the agency believed was "insufficient to resolve any significant development problems encountered during design, development, and integration and test phases, with regards to schedule and throw weight capability of the launch vehicle."⁶ The agency also believed that the Delta, in order to carry more weight, would require [deleted] rather than just [deleted] including [deleted]. While the agency found that these features may be necessary and adequate for the Delta to maintain the proper weight margin, "[t]he cost of some of these [alternative fallback features] is substantial and creates an incentive for the contractor to select higher risk, weight saving solutions to spacecraft design problems."

Based on this record, we conclude that the agency reasonably evaluated the Hughes technical proposal as significantly superior than the TRW technical proposal. In short, we agree with the SSO that "[s]imply put, [Hughes' technical] approach was safer and far more likely to succeed than TRW's." In simple terms, Hughes' basic, fundamental approach was to propose a proven, reliable, relatively risk-free (nearly production-line) system. The protester does not persuasively argue otherwise. In contrast, the agency found that TRW's basic, fundamental approach to employ a smaller Delta ELV which forced the firm to modify, develop, or innovate much unproven hardware to "fit" the Delta caused such significant risks to the successful completion of the program that TRW itself was forced to offer extensive, [deleted] risk mitigation plans (including, as a last resort, [deleted]) which were increasingly expensive and which carried with them their own risk.

⁶The agency believed that a modified spacecraft design should possess a 25 percent mass contingency prior to Preliminary Design Review to be classified as "prudent." TRW's mass contingency was less than [deleted] percent.

Specifically, while TRW argues that the agency did not adequately consider these mitigation plans in assessing risk, we think the agency reasonably found that these extensive, [deleted] mitigation plans presented additional risks to the agency because, under this fixed-price contract, TRW, under this scheme, could be forced to make major, [deleted] cost/technical risk trade-offs [deleted]. While the RFP contained penalties for unsuccessful performance, the agency reasonably decided that TRW, within its own business discretion, would still have the contractual right to determine for the agency how much risk to accept (or how much money to lose) [deleted] in the mitigation plan process.⁷ We therefore conclude that TRW's approach [deleted]--was reasonably considered by the agency as significantly inferior to Hughes' proven and reliable system.⁸ In short, we find that the agency reasonably determined that the Hughes proposal was significantly superior under the Mission Suitability factor.⁹

⁷TRW, for example, argues that it offered to [deleted]. The validity of this [deleted] is in dispute, and we discuss it below. However, if we accept the protester's argument at face value, and using [deleted] by invoking the last "step" of its mitigation plan. [Deleted]. Since TRW itself proposed to [deleted] at its own discretion, we think the agency's evaluation of the risks of TRW's overall approach including all its mitigation plans was proper.

⁸Since we find that the agency reasonably found significant fault with TRW's technical approach we need not discuss other technical aspects of the protest. For example, TRW argues that the SSO, without explanation, recharacterized as substantial technical and schedule risks certain portions of its technical proposal that the SEB considered "minor"; that NASA improperly evaluated as a schedule risk the proposed time frame for selecting an alternate ELV; that NASA improperly evaluated certain weight margins on the spacecrafts; and that Hughes was improperly credited with certain technical enhancements. None of these issues alter the agency's reasonable determination that TRW's basic technical approach was faulty and excessively risky.

⁹With regard to the Relevant Experience and Past Performance factor, the agency rated both firms as essentially equal ("Very Good"). The record shows that the agency found both firms are very competent and experienced contractors and there is no basis to question this determination by the agency. Concerning the Other Considerations factor, NASA also finally rated both firms as "Very Good" and as essentially equal. The protester does argue under this factor that the agency improperly evaluated Hughes'

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Price Factor

As stated above, Hughes offered a price (exclusive of ELV costs) of \$481.6 million; TRW's price was [deleted]. Inclusive of ELV costs, TRW alleges that it would have been the low offeror by a net savings range of [deleted] to [deleted] after Hughes' price is properly evaluated (as including Atlas launch costs) for a total price of \$699.8 million.¹⁰

We have examined the actual prices for the Delta launches and conclude that the net savings to the government from TRW's use of the Delta is substantially less than the lowest level of TRW's claimed savings range.¹¹ Based on our in camera review of the record, we find that, given the fact that the procurement is in the range of \$700 million inclusive of launch costs, the percentage difference between the two offerors, inclusive of these costs, is minimal.¹²

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financial resources based on an allegedly illusory financial commitment letter from Hughes' parent company, GM Hughes Electronics. However, regardless of the ultimate value of this letter, we have no basis in this record to disagree with the agency's finding that Hughes Aircraft is fully capable of financing successfully its own contract. We therefore have no basis to disturb the agency's determination of essential equality under the Other Considerations factor.

10We are unable to precisely reveal TRW's evaluated price inclusive of the Delta ELV launch costs because the Delta launch prices are subject to a permanent injunction by a federal district court enjoining their release outside the government. We will therefore only refer to them and their net effect on TRW's proposed prices in general terms.

11We note that TRW's own pre-proposal pricing strategy assumed that the firm would have to [deleted] to successfully win this contract [deleted]. TRW simply did not do so.

12We also note that should TRW decide to [deleted] for technical or other reasons, the claimed cost savings to NASA from TRW's use of the cheaper Delta launches would disappear entirely. TRW argues that it [deleted]. It is thus not clear that TRW, because of [deleted], committed itself to [deleted]. Generally, a commitment of this nature must be unequivocal. See J.W. Bateson, GSBICA No. 4596, 77-1 BCA ¶ 12,740 (1977); Franchi Constr. Co., Inc., ENG BCA Nos. 2540 and 2541, 1964 Eng. BCA LEXIS ¶ 82 (1964); cf.

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SELECTION DECISION

Given that the agency reasonably determined that the Hughes technical proposal was significantly superior to the TRW technical proposal, and given the minimal difference in price between the two offerors inclusive of launch costs, we conclude that the agency could reasonably determine that the Hughes proposal represented the best overall value to the government.

The protest is denied.

Robert P. Murphy
General Counsel

12(...continued)

Dresser Indus., Inc., 67 Comp. Gen. 163 (1987), 87-2 CPD ¶ 634.

1. PROCUREMENT
Competitive Negotiation
Offers
Evaluation
Administrative discretion

2. PROCUREMENT
Competitive Negotiation
Contract awards
Source selection boards
Administrative discretion